THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE.

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American Farmer Establishment.

BALTIMORE: TUESDAY, AUGUST 5, 1834.

SILK.—In a former number, we considered a method which would be a proper one to be pursued by a person, who should attempt to convert his barren waste into an orchard of mulberries, for the purpose of raising silk. Many different methods of planting might be adopted, according to the intentions of the cultivator. The one, we formerly considered, supposed the land to be so poor as to need manure, and of considerable extent. In such a case, where manure was scarce, the plan of placing the trees at the distance of 16 feet apart, and manuring round them, would enable the cultivator to occupy his intended space of land at little expense for trees; and by cultivating and manuring the interstices between the rows, the land would become in a favorable condition, and eventually occupied by the spreading from the roots, and the ground filled up with the trees, in as economical a manner as an orchard of such an extent could be obtained.

It has been computed by those, who have had most experience in the multicaulis, that an acre of land well set with this vegetable, would produce from 50 to 75 lbs. of merchantable silk, and some have supposed, as much as 100 lbs. to the acre might be obtained. This silk is of ready sale at $4 to $5,50 per lb. If we take the lowest estimate that we have mentioned, of 50 lbs. at $4 per lb. it will amount to $200 per acre: but, that we may be quite within the range of probability, and make sufficient allowance for all incapacity and slovenliness in management, let us deduct one half of that, and suppose the product to be 25 lbs. of silk, or $100 per acre. This would be no small increase in the value of that land, which, in its present state, is absolutely valueless, and a waste of labor to occupy it in any way.

It is the practice of the Chinese landholders, to have their land planted with the mulberry, and rent it out to the poorer class, who make the silk to the shares. One half goes to the owner of the land, and the other to be retained by the laborer. What owner of a 1000 acres of poor land in this state, or to the south of us, would not find it to his advantage to set off fifty acres of land, and lease it to a tenant for a long term of years, to be occupied in this way? The first few years it might be without rent, but on the condition that the tenant propagate the mulberry tree; and afterwards to give half the silk. Admitting it produced but one half the amount of our lowest estimate, it would yield $25 per acre annually to the owner of the land, without his having trouble or expense. That land which is now offering for sale at 5 or $6 per acre, without a purchaser, if set with the multicaulis, would, at the low estimate we have made, which is but one eighth of what might be done, and is done, be to the owner as good as $300 per acre.

If the large land holders would set off a part of their land in this way, and offer it to tenants at a favorable rate, it would be the means of collecting around them an independent class of laboring men, who would give a value to their whole possessions, and confer a lasting benefit on the community at large.

But if such decisive measures should be considered as requiring too great a departure from old habits, let every one who has land in waste and numerous hands on their place, make a beginning; procure a few trees, and set off an acre of land, for a truck patch, as it is called; plant the trees in it, and give the servants all the silk they will make in five years. There would be no doubt of its rapid increase in such a case, and not an hour of labor lost to the master. It is a common thing to see the slave have the best and fattest hog on the farm—when he has a separate garden, his cabbage heads are larger and firmer than are to be found in the plantation garden—and if the mulberry trees were entrusted to his care in a way in which his interest was effected by success, they too would succeed without a doubt, and the master nothing the worse for it. It is a very common thing to hear the master say he wishes his negroes were in Africa, and he had the money for them. If any are really desirous of such a measure, here is presented a way in which the slave might soon pay his price, and leave his master doubly enriched; first, by the absence of the slave, and secondly, by the increased value of his estate.

MARYLAND HORTICULTURAL SOCIETY.

SATURDAY, Aug. 2.

Mr. Robert Dore presented four egg plants, very fine for the season.

Mrs. B. I. Cohen presented specimens of a new variety of Plum, of most delicious flavor.

Mr. Waters presented three varieties of Plums, fine and perfect.

Mrs. B. I. Cohen exhibited a plant in full flower, of the Aloe Carina, a fine specimen, and the first that has flowered in this vicinity.

Mr. G. B. Smith presented specimens of the Lady Washington, and a new seedling double pink Dahlia; also Oleander Splendens, and double white Oleander.

Mr. John Feast exhibited specimens of Ruellia formosa, Orchis purpurea, Franklin Tea Rose, Seedling Ilibiscus, Escholtzia Californica, &c.

Mr. Evan Thomas exhibited a fine plant of Ixora Coccinia.

Mrs. Emory presented specimens of Centaurea Americana, Oleander Splendens, Comelina Cerulea, Crepis barbata, Lonicera Caprifolia, yellow double Flowering Pomegranate, Sophora occidentalis, &c.

METHOD OF DESTROYING MOLES IN MEADOWS AND GARDENS.

Collect earth worms, kill them, and mix them up with the powder of Nux Vomica. After the mixture has remained in a heap for twenty-four hours, take the worms and place one or more of them here and there in the holes or tracks of the moles.—The desired effect is said to be a certain result.

A man in Salem, Washington county, Ohio, engaged in hewing out a mill stone, having broke off the upper surface of the stone, three inches and a half, discovered several holes in a straight line across the stone, having every appearance of being drilled for the purpose of setting wedges to break the stone. In one of the holes was part of a wedge. Two thin plates of iron had first been put into the hole, and the wedge was driven in between them, and was broken off. The plates and the wedge were in a perfect state of preservation, having rusted but little. These holes and the wedge were 3 inches and a half from the surface, the stone apparently having grown over them. The stone was perfectly solid, excepting these holes, and the upper surface was of the same nature and hardness with the other part of the stone. The stone was covered by two or three feet of earth, probably washed from the hill above.

THE FARMER.

To Preserve Potatoes and Turnips through Winter.

To the Editor of the Farmer & Gardener:

In compliance with thy request of the 8th inst. I will describe my practice of preserving potatoes and turnips through the winter, for the benefit of thy southern correspondent, H. C. Hoyt, and others.

I have found but little difficulty in keeping them, in a sound state, in the latitude of Baltimore, and I think they could also be preserved in North Carolina, by managing as follows:—

Dig the potatoes after there has been frost enough to kill the vines. One day's sun will dry them sufficiently for storing, a longer time of exposure would make them rancid. Select a place for storing the roots, on a dry, north hill side, sufficiently elevated to preserve them from the injurious effects of soaking rains. Dig the holes for receiving them from one to three feet deep, according to the soil, and not more than four feet wide, else it will contain too large a bulk for preserving them without fermentation. The hole or pit may be made of any convenient length which may be desired—then fill in the potatoes, and raise the pile above ground as long as they will lie on the pile, and cover them one or two inches thick with dry leaves, wheat straw, or chaff; then cover the hole regularly with the surrounding earth, enough to keep out the frost—here (Baltimore) it requires 18 inches of earth, especially on the north side of the heap. Let it be well packed, and heaped to a point or ridge and smoothly pressed with a shovel, so as to exclude the water from soaking in. If the heap be surrounded by a small drain, at a little distance from the pile, so as to carry off the rain, it would be an additional security against the injurious effects of dampness.

Turnips may be saved in the same manner, with the additional precaution of forming a vent at the top of each hole, or one at each end of a long pit, if that form is adopted; which may be in the following way.

After the straw covering is on, fix a piece of wood about three inches diameter, and eighteen inches or two feet long, on the top of the hole, and then pile on the earth around it, and pack it close, the thickness intended. By working the piece of wood, it may be withdrawn, leaving a smooth hole through the covering to the roots. In order to keep out the rain, &c. lay around the hole three half bricks, or stones, to support a large sod, cut from a firm green sward, which will cover the hole and the bricks or stone, and will preserve the opening to pass off the moisture from the turnips, which is very injurious to their preservation. Smaller holes or sides for the turnips will be safer, and perhaps a mixture of dry sand would be found useful, as it has been found valuable in saving beets, &c.

Thy Friend,
ROBERT SINCLAIR.

FARMERS' LYCEUMS.

Mr. Editor:—Some of the most social and instructive evenings I have ever spent, were at weekly meetings of twenty or thirty plain, practical farmers, held at their own houses, during a few years since. At every meeting some subject of agriculture or domestic economy was selected for conversation and remark at the next meeting. Two Secretaries, appointed for the purpose, recorded the substance of the remarks, which were given orally, and kept on file all written communications.

In the course of one season, two volumes of manuscript were formed from the remarks made, which were, of course, almost wholly of a practical, experimental character. These volumes furnished many articles, which were of the most useful, because of the most practical, character. I have also been interested in State and County Agricultural Societies, but never received one half the entertainment or instruction from all others united, as from these social informal meetings among a few neighbors, and of such a character as could be easily sustained in town, or neighborhood in the country.

Such meetings among farmers receive great additional interest and value from their connection with general Lyceums; embracing, not only farmers, but mechanics, merchants, and those engaged in literary professions. These different classes become mutually beneficial to each other. The clergymen, physicians and teachers are no less benefitted by the farmers' practical knowledge, than he is by their theoretical sciences.

Museums, or collections of natural and artificial productions, together with books on scientific and practical agriculture, and treatises on general science, would be of the utmost service, in rendering the social meetings of farmers a Farmers' Lyceum.

Such being the fact, every farmer who consults his own pleasure or profit, must see the importance, and the entire feasibility of his lending his aid to the general establishment of Lyceums in all the counties, towns and neighborhoods in our Union—for, if he aids in establishing or sustaining one in his own county or neighborhood, he he will at least set an example worthy of being followed in every other county and neighborhood in the states. AGRICOLA.

[From Bridgman's Young Gardener's Assistant.]

August.—The planting season being nearly over, now is the time to hoe around the plants and clear the ground of weeds and stubble. Dig or plough vacant ground ready for fall Turnips, Spinach, Shallot, Fetticus, &c. As the ground for the latter crops may require manure, it will be greatly improved if ploughed before the manure is drawn on, which should be afterwards spread and ploughed under.

Plant Beans for picklers; sow Cabbage seed for Collards; earth up Cardoons; do. Celery; sow Corn Salads or Fetticus seed; the early kinds of Cucumber may produce picklers if planted early in this month; transplant Endive and prepare to blanch the early plantings; Peas may be planted thus late if desired; sow black Radish seed; prepare for planting Shallots by the end of the month; sow Turnip seed for full crops; attend to such herbs as were not gathered last month, cut off and dry Sage, and other late herbs. Hops will be ripe this month; choose a dry season for gathering them and attend to them as directed; this is a good season for preparing to make Mushroom beds, in close sheds, cellars or pits; if the materials be collected this month, indigenous spawn may be collected next, but those that can procure spawn may make the beds at any time, or they may pursue Mr. Nichols' plan; continue to gather seeds of all kinds as they ripen, and clear the ground ready for late crops of Spinach, &c.

If the weather be dry, such flowering shrubs as were planted in the spring should be watered occasionally. Cut down all decayed stalks as soon as the seeds be gathered, and pull up annuals as they cease to flower. Mow grass walks and lawns, and attend to the edgings, &c. The Grapes against south walls will now be maturing fast; look them over frequently, and stop the shoots that require it. If the weather be dry, trees planted in the spring preceding, should be watered, and such other trees as may be in very light ground.

Wool.—The business in the sale of wool has begun to move. There has been something doing in this article the last week, at the prices quoted in our Price Current, and the demand will be likely to increase for some time to come.

We copy the following from the Northampton, (Mass.) Courier, which may be found of interest to any of our readers who may have turned their attention to this branch of rural economy:

WOOL.—The unsettled and fluctating state of the Wool market, occasions some little solicitude among the growers. Wool at present prices is twelve to fifteen per cent. less than last year, and the question now is whether prices will rise or fall the ensuing autumn.—Some of the Wool growers are confident that it will rise, and so hold on upon their stock, while others, less sanguine, are selling their fleeces, unwilling to keep it on hand, trusting to future exigencies. The case seems to be this. The manfacturers have unsold a large amount of cloths, the prices of which have fallen materially, and even at a great reduction they are unable now to sell them.—They all have remaining considerable lots of wool, and are determined to purchase only to supply urging necessities. They believe that large quantities of the new clip will early be thrown into the market, and that the wants of individuals will require it to be sold.—It is conceded on all hands, that an unusual amount of wool is cut this year, and that the quantity of cloth manufactuered is much less than in ordinary times. The manufacture will not be extended until the sale of cloth is much increased, and consequently, the demand for wool will not be greatly extended at present.

Manufacturers inform us that prices as they now are, but poorly repay the actual expenses of the fabric, and that wool must fall before they shall be disposed to extend their business. The disposition now is to curtail it, as they are working at no profit. One of these gentlemen informed us the other day that he purchased Ohio wool in the city at much less than the article can be produced for in this vicinity. We krow it is hard for the toil of the wool growers to be thus

poorly rewarded. But it comes from the necessity of the times, that they must suffer as others suffer.—They are not alone in a ruinous depreciation of their industry. Beef Cattle has fallen, Grain has fallen, and Wool of necessity has fallen also. If there was any evidence, either in the signs of the times or the prices of manufactured articles, either at home or abroad, that wool would materially rise, we should most cheerfully say so. But it is not wise to hold out allurements which are both false and deception to our pecuniary interests. We therefore would seasonably caution the wool grower against a *too confident* reliance upon the expectation of better prices, so much so as to allow favorable opportunities for the sale of his commodity to pass unimproved.

Since writing the above, a wool grower from the hill towns passed by with his new clip for the manufacturers in Worcester county. He informed us he was paid 50 cents, having sold the same last year for 70! His remark was, that it was wise for him to sell while there was a chance, before the market was glutted with Ohio wool. He might not have even another *such* opportunity.

On the principal varieties of the Potato cultivated in Great Britain.

By Mr. Charles Lawson.

The results of the numerous experiments already on record, shewing the superiority of some kinds of potatoes over others, induced me to pay some attention to the subject, and to collect characteristic specimens of all the varieties which I could obtain, with the view of submitting them to comparative investigation.

The mere names applied to the varieties in cultivation afford little useful information, the same sorts being frequently called by different names in different districts; and in presenting a tabular view of the principal varieties, I have been careful to note their distinctive qualities.

That new varieties may be produced by seed *ad infinitum* is well known; and that those already in existence are numerous, is in some measure demonstrated by the list which I have prepared. These varieties are in general distinguishable by their form and color, the appearance of the eyes, or some peculiarity in their growth.

But if the permanency of varieties cannot be depended upon, the utility of any comparison of their merits would be greatly lessened. This permanency has frequently been disputed, and it has been argued, that as the tuberous roots of the potato are lateral productions, like the buds of trees, and productive of plants exactly resembling the parent, they must be liable to hereditary diseases, and so become ultimately unhealthy. By some, fourteen years are stated as the period of existence of a variety of potato; and in support of this opinion, the appearance of the curl about that period is adduced as an evidence of decay.

This doctrine, however, has always appeared to me opposed to analogy, as shewn in the cultivation of plants generally; and even although Mr. Knight's doctrine as to the apple should be correct, it does not follow that production by extension, and production by means of tubers, are the same.

The latter I consider as equally fitted to produce a progeny distinct from the parents as the generation by seeds.

The tubers, however, having no source of improvement after they have arrived at maturity, and being liable like all plants to injuries, may contract hereditary diseases, which, however, might have been prevented by proper attention. I believe that any variety of potato, cultivated by means of tubers, may be continued unchanged to any length of time, provided due care be employed in its culture.

No doubt extensive experience has proved, that the cultivation of any particular variety of potato, for a continued succession of crops, in the same soil and situation, injures the quality, and diminishes the quantity of the produce. But this is a law applicable to all cultivated plants, and only shews that attention to the change of circumstances and to rotation is also necessary in the cultivation of the potato.

Nothing appears to me to resemble the growth of the potato under ground, so much as the strawberry does above ground. In the former, a shoot springs from the root of the plant, after the leaves are expanded in the air to oxygenate the nutritious fluids, and so forms a tuber; and in the latter, the runner performs the same office, and deposits a new plant. The most scrupulous as to the permanency of varieties will admit, that those of the potato are at least as enduring as those of the strawberry. Now, by attention to the numerous varieties of this plant, we have been enabled to avail ourselves of every benefit arising from an accurate discrimination of the sorts. In like manner, attention to the potato may enable us to obtain similar, nay more important benefits.

What is wanted regarding the potato is,

1. The fixed application of a particular name to each of the more important varieties;

2. The determination of those varieties the cultivation of which ought to be abandoned;

3. The indication of those more peculiarly adapted to particular soils, situations, and purposes;

4. The knowledge of those to which we might look with most certainty as improvable by crossing.

With these views I have prepared the following descriptive table of the varieties which I had an opportunity of growing and examining this season.

There can be no doubt that a change of soil, climate and treatment, may alter the qualities of the tubers in a considerable degree; but it appears to me not less true, that no circumstances will very materially change the general tendency to being early or late, the general form, the colour, or the general habit of growth.

I have therefore noted these particulars, as affording collectively discriminative characters of sufficient value.

The tubers are composed of water, starch, fibrous matter, mucilage, and saline extract. It is probable that the mealiness depends either upon a due proportion of these principles, or upon the mucilage of some being more or less coagulable by heat than that of others; or it may occasionally be affected by the acidity of the spring-water in which they are boiled. However this may be, I have noted the quality of the different varieties as to their being mealy or waxy.

The comparative liability to disease is the next circumstance attended to. The mode of growth of the stems, whether inclined to be erect or drooping, has also been noted.

The flavor, I apprehend, depends very materially on the increased action of the vital functions of the leaves, and does not admit of being very intelligibly expressed.

The degree of productiveness is a matter of great importance, but can be expressed only by very general and rather vague terms.

Although the same variety of potato, cultivated under different circumstances, may yield different proportions of its component parts, yet as a comparative view of that ingredient of most importance in its application as food, namely the starch, from the different varieties cultivated under the same circumstances, will afford a good criterion as to their relative value, I have ascertained this by rasping eight ounces of tuber of each variety, which being immediately mixed with a sufficient quantity of water, was poured upon a fine hair-sieve, through which the water passed, carrying with it the white precipitate. The weight of this sediment deposited from the filtrated fluid, after being thoroughly dried, is marked in the table. In those cases where the difference was great, to prevent the possibility of mistake, I made second trials. I think it likely that had the macerated potato lain for a day, and been frequently stirred, the quantity of starch would have been greater; but as the whole were done exactly in the same way, the products answer equally well, as affording a comparative view.

In the specimens of starch produced by the different varieties, a considerable difference was perceptible, both as to color and texture; and on trying the specific gravity of twenty specimens, I found it to vary from 1 to 8 per cent.

The fibre of 8 oz. of tuber in twenty varieties, when dried, weighed from 180 to 216 grains troy.

The specific gravity of the tubers themselves is nearly in the same ratio as that of the starch, as above indicated. A cubic inch of twenty of the varieties which I have tried weighed from 295 to 312 grains. The comparison, however, requires to be made with greater accuracy than I can accomplish at present, in order to discover whether Mr. Knight's opinion, that "probably the nutritive property of the potato is nearly proportionate to its specific gravity," be correct. In the mean time, however, my friend Mr. Macgillivray has obtained for me, from Dr. John Murry, the specific gravity of six of the varieties sufficiently adapted for contrast, namely,

No. 45. Late Field Kidney,	1135
No. 36. Don,	1121.9
No. 53. Emperor,	1108
No. 24. Taylor's,	1099
No. 49. Ox Noble,	1094
No. 50. Yam,	1051

From these it will be seen, by a reference to the table of the quantity of starch yielded by these varieties, that the starch increases in nearly the same ratio as the specific gravity, and thus that the correctness of Mr. Knight's opinion is proved.

LIST of SPECIMENS OF POTATOES, *with their Characters, sent to the* HIGHLAND SOCIETY, *by Mr. Lawson.*

No.	POPULAR NAME.	Early or Late.	Form of the Tuber.	Color of the Tuber.	Waxy or Mealy.	Liable to disease or free from that tendency.	Inclination of the stem.	Flavor.	Productiveness.	Grains Troy of Starch in 5 oz. Clean Tubers.
1	Seedling, Early	Very early	Round	White	Mealy	Not subject	Upright	Superior	Medium prolific	410
2	Kay's American	Very early	Oblong	Reddish	Mealy	———	Upright			390
3	Hopeton Early	Early	Round	White	Mealy	Not subject	Upright	Good	Prolific	395
4	Dutch Early	Early	Round and small	White	Mealy	Not subject	Upright	Good	Prolific	325
5	Williamson's Favorite	Early	Round	White	Mealy	Not subject	Medium	Good	Prolific	452
6	Early Champion	Medium	Round	White	Mealy	Not subject	Upright	Strong	Prolific	306
7	Early Frame	Very early	Roundish	White	Mealy	Not subject	Upright	Good	Medium	262
8	Dwarf Frame	Earliest	Round	White	Waxy	Liable	Upright	Inferior	Medium	279
9	Manly	Medium	Round and flat	White	Mealy	Not subject	Upright	Good	Prolific	300
10	Foxly	Very early	Ditto	White	Waxy	Subject	Drooping	Inferior	Unproductive	262
11	Early Shaw	Early	Round	White	Rather waxy	Not subject	Upright	Good	Very prolific	375
12	Ash-leaved	Early	Oblong	White	Waxy	Not subject	Upright	Inferior	Very prolific	363
13	American	Early	Round	White	Mealy	Not subject	Upright	Good	Prolific	385
14	Ross' Early	Early	Round	White	Mealy	Not subject	Upright	Good	Prolific	354
15	Early Wellington	Early	Round	White	Mealy	Not subject	Upright	Good	Prolific	328
16	Early Field-kidney	Early	Long and flat	White and pink	Mealy	Not subject	Drooping	Superior	Prolific	295
17	Sutherland Kidney	Medium	Oblong flat	White	Mealy	Not subject	Drooping	Good	Prolific	355
18	Asparagus	Early	Oblong	Dingy white	Waxy	Liable	Drooping	Indifferent	Very unproductive	
19	Cape of Good Hope Kidney	Early	Kidney	White	Mealy	Not subject	Drooping	Superior	Prolific	395
20	Musgrove's Giant Kidney	Early	Oblong	White	Mealy	Not subject	Medium	Good	Very prolific	390
21	Musgrove's Snow White	Early	Oblong	White	Medium	Not subject	Upright	Good	Very prolific	395
22	Fifeshire Early	Early	Oblong	White	Mealy	Not subject	Upright	Good	Prolific	465
23	Rom' Pigmy Kidney	Medium	Kidney	White	Mealy	Not subject	Upright	Fine rich	Prolific	305
24	Taylor's Forty-fold	Medium	Round	Dull red	Mealy	Not subject	Upright	Superior	Prolific	235
25	Black Skinned	Late	Round	Dark purple	Mealy	Not subject	Drooping	Delicate	Prolific	383
26	Purple Skinned	Late	Oblong	Purple	Mealy	Not subject	Upright	Superior	Prolific	268
27	Bread Fruit	Late	Round	White	Mealy	Not subject	Upright	Superior	Prolific	395
28	Red Nose Kidney	Late	Long flat	White and pink	Mealy	Not subject	Medium	Good	Medium	294
29	Pine Apple Kidney	Late	Long	White	Waxy	Not subject	Drooping	Inferior	Prolific	245
30	Variety of ditto	Late	Oblong	White	Waxy	Not subject	Drooping	Inferior	Prolific	340
31	Lancashire Pink	Very Late	———	Bright Pink	Waxy	Not subject	Upright	Medium	Prolific	441
32	Red Apple	Medium	Round	Red	Very Mealy	Not subject	Upright	Superior	Prolific	302
33	Late Wellington, or Stafford Hall	Late	Oblong	Dark red	Mealy	Not subject	Trailing	Superior	Prolific	542
34	Scotch Black	Late	Round	Black	Mealy	Not subject	Upright	Superior	Prolific	372
35	American Black	Late	Round	Dark purple	Waxy	Not subject	Upright	Inferior	Prolific	364
36	Don	Late	Round	White and purple	Mealy	Not subject	Upright	Superior	Very prolific	399
37	Captain Fraser's Seedling	Late	Oblong flat	White and pink	Mealy	Not subject	Upright	Superior	Prolific	316
38	Scotch Red	Late	Round and flat	Deep red	Mealy	Not subject	Upright	Superior	Prolific	488
39	Perthshire Red	Late	Oblong	Red	Waxy	Not subject	Upright	Good	Prolific	518
40	Scotch Grey	Late	Round	Livid purple	Medium	Tendency	Upright	Good	Unproductive	247
41	Variety of Scotch Grey	Late	Round	Dark purple	Mealy	Not subject	Upright	Superior	Prolific	356
42	Black Kidney	Late	Oblong	Black	Mealy	Not subject	Upright	Superior	Not prolific	289
43	Albany Kidney	Late	Oblong and flat	White	Mealy	Not subject	Drooping	Superior	Prolific	332
44	London Kidney	Early	Kidney	White						
45	Late Field Kidney	Late	Oblong and flat	White and pink	Mealy	Not subject	Drooping	Superior	Very prolific	416
46	Poor Man's Profit	Late	Round and oblong	Red	Mealy	Not subject	Upright	Superior	Very prolific	389
47	Lady Mary	Late	Round	Purple	Mealy	Not subject	Upright	Superior	Not prolific	377
48	Late Champion	Late	Round	White	Medium	Not subject	Upright	Good	Prolific	197
49	Ox Noble	Late	Round	White	Watery & waxy	Not subject	Upright	Indifferent	Very prolific	295
50	Yam	Late	Oblong	Pink	Watery & waxy	Not subject	Trailing	Indifferent	Very prolific	262
51	Cork Red	Medium	Round	Red	Very mealy	Not subject	Upright	Superior	Prolific	356
52	Buff	Late	Round	Buff	Mealy	Not subject	Upright	Superior	Prolific	307
53	Emperor, or Apple of the Earth	Late	Round	Purple	Mealy	Not subject	Upright	Medium	Prolific	305
54	Onion Potato	Late	Roundish	Purplish	Very mealy			Good	Prolific	304
55	Black Prince	Late	Round	Black	Medium mealy			Indifferent	Prolific	345
56	Peruvian Pototo	Late	Oblong	White	Medium mealy			Indifferent	Prolific	436
57	Biscuit Potato	Late	Round	Pink, with red eyes	Very mealy			Superior	Prolific	316
58	Wild Potato	Late	Round	Pinkish	Waxy			Inferior	Prolific	328
59	Yellow Potato	Late	Oblong	Whitish Yellow	Medium mealy			Good	Prolific	390
60	Yellow Cone	Late	Long	Ditto	Mealy			Fine	Prolific	398
61	Prize of Westerfield	Late	Round	Red	Mealy			Superior	Very prolific	295
62	Cucumber Potato	Late	Oblong	White	Medium mealy			Indifferent	Prolific	363
63	Chestnut Potato	Late	Oblong	Purple, with red eyes	Very mealy			Superior	Prolific	397
64	Wakefield Potato	Late	Oblong	Red	Rather waxy			Medium	Prolific	325
65	Early Pale Red	Medium early	Oblong	Bright red	Very mealy			Superior	Productive	356
66	Marbled	Late	Round	Marbled pink and red	Very mealy			Superior	Productive	423
67	Long Red Kidney	Late	Long	Red	Medium mealy			Good	Medium	296
68	Early Red	Early	Oblong	Red	Very mealy			Superior	Productive	305
69	Forfar Kidney	Late	Long	White	Waxy			Indifferent	Medium	420
70	Black	Late	Round	Livid purple, the same inside	Waxy			Inferior	Productive	286
71	Cup	Late	Round	Light red	Mealy			Good	Productive	441
72	White	Late	Long	White	Mealy			Good	Productive	342
73	Robertson's Giant Red Kidney	Late	Long	Bright red	Waxy			Medium	Medium	305

The potatoes in the list from No. 1 to No. 53 inclusive, were all grown on land of the same quality, viz. a rich loam of medium texture, and with decomposed stable manure.

The sorts from No. 54 to No. 73 inclusive, were grown on rich sandy loam.

In conclusion, I have only to express a hope that the investigation of the qualities and capabilities of this valuable plant will be followed out so as to lead to important practical results.

THE BREEDER & MANAGER.

[From Dixon's Live Stock Manager.]

The Middle-Horned, or Devonshire Breed and Sorts.

This breed of cattle is much esteemed for its great activity, fine flesh, readiness in fattening, early maturity, and the natural inherent state of purity of blood in which it has remained.

The cattle of this kind are frequently met with in the south and south-west parts of England, as Devonshire, Sussex, Dorsetshire, Hampshire, and Somersetshire. They have also reached as far northward as Herefordshire, where perhaps the largest sort of this breed are to be found. The red cattle of North Devon and Somerset may be considered one of our original breeds, and one which has preserved most of its primitive form: the excellence of which for labor is best proved by the fact that the use of horses is discountenanced where these cattle can be procured. Their high repute as feeders, and the superior excellence of their beef, have been acknowledged for ages; and Mr. Bakewell has paid them the highest compliment they could possibly receive, by declaring to an inquirer that the Devon cattle could not be improved by any cross with other breeds.

This breed, however, frequently runs to too great length of leg, crooked behind or sickle, hammed, and is of sufficient general substance. They are also apt to be *in-kneed*, that is, crooked in the fore legs; a defect analogous to that styled sickle-hammed in the hinder legs. It is conceived that by a nice and proper selection from their own stock, they might be bred somewhat more square and substantial, without at all detracting from their delicacy, shew of blood, or speed. Their powers of labor, as well as the quantity of beef produced from them, might thus be increased, without either debasing their fine qualities, or rendering necessary a larger portion of keep. These cattle have for a century past commanded the best price at Smithfield; but of late years the buyers there have shrewdly remarked, that although blood and fine form are very pleasing to the gentleman breeder, yet substance and weight are, and ever must be, the grand objects at market.

It must also be allowed that the Devons are the speediest working oxen in the country, and will trot well in harness; but in point of strength, they stand in the fourth or fifth class. They have a greater resemblance to deer than any other breed of neat cattle. They are rather wide-horned than middle-horned, as they are generally called: some, however, have regular middle horns, that is, neither short nor long, turned upward and backward at the points. As milkers, they are so far inferior to both the long and short horns, in quantity and quality of milk, that they are certainly not proper objects for the regular dairy, however pleasing and convenient they may be in the private family. They have, however, been used with success at Epping, in Essex, in one or two instances; though they are very commonly rejected by the dairies of their own and the neighboring counties.

It is also observed, that the best bred North Devons, being a hill cattle, are much more hardy and better winterers than could be reasonably supposed from their appearance. The ox in this variety is mostly considered in perfection about the fifth year of his age.

The cattle of the middle-horned breed that are met with in Devonshire were, according to Mr. Culley, in his time, to be found in the greatest purity and of the best kind in the vicinity of Barnstaple, which is still the case; these are of a high red color; if they have any white spots, the breed is reckoned impure, particularly if those spots run into another, with a light dun ring round the eye and the muzzle, of the same color. They are fine in the bone, clean in the neck, have horns of a medium length bent upwards, are thin-faced and fine in the chaps, wide in the hips, a tolerable barrel or body, but rather flat on the sides, with a tail small, and set on very high; they are also thin-skinned and silky in handling, feed at an early age, or arrive at maturity sooner than most other breeds; they are well fitted for draught, both as to hardiness and quick movement, and their shoulder points are admirably well fitted for the collar.

In the more full description of the true cattle of this breed, the head is said to be small, clean, and free from flesh about the jaws; the eye prominent; the countenance deer-like, light and airy; the neck long and thin; the throat free from jowl or dewlap; a darkish orange-colored list or circle round the eyes; and the same color on the nose; the ears thin and pointed, being tinged on their insides with the above color; the horns thin and fine to their roots, of a cream color, but not tipped with black, growing with a regular curve upwards, and somewhat springing from each other; light in the wethers, resting on a shoulder a little retiring and spreading, and so rounded below, as to prevent all appearance of its pinion in the body of the breast; the bosom open, with a deep chest or keel, preceding and between its legs; small and tapering below the knee, fine at and above the joints, and where the arm begins to increase, it becomes suddenly lost in the shoulder; line of the back straight from the withers to the rump, lying completely on a level with the pin or huckles, which are placed wide and open; the hind quarters seated high with flesh, leaving a fine hair-ham tapering from the hock to the fetlock; long from the rump to the huckle, and from the pinion of the shoulder to the end of the nose; thin loose skin, covered with hair of a soft furry nature, which, when in good condition and full coat, is inclined to curl, and becomes mottled with darker shades of its fixed color, that of a bright red, without white or other spots, especially on the male.

The defects in this breed may be considered to be these:—the sudden retiring of the vamp from behind the huckle to a narrow point backwards; the large space between the huckle and the first rib; the smallness of the angle inwards, at which the ribs seem to project from the spine or backbone, giving the appearance in many instances of a flat-sided beast; and in its being so greatly tucked up in the girth, as to display an unpleasant cavity between the keel and navel, the line of which should constantly be found to hold a position as nearly as may be, parallel to that of the back, from the withers to the loins. These beasts are generally well known, and filled up behind the shoulders.

Cattle of this breed are begun to be broke in for labor at two years old in a gentle and easy manner, when they are sometimes worked until three or four, but mostly till five or six years old, being employed for all sorts of team labour, and are probably more perfectly adapted for the purpose than any other sort.

The bulls of this breed have too commonly imperfections in their forms, which are not met with in either the cows or oxen, the make of which is handsome; such should therefore be selected as have the above shape of parts as much as possible, the neck never being to be found fault with, though rising considerably thick and high on the crest, if without fleshiness at the insertion with the head. Occasionally good milkers are met with among the cows of this sort, though they are in general but indifferent in this respect.

Lord Somerville, a native of, and resident in, the county wherein these cattle are bred, speaking of the red, or Devon sort, has observed, that in describing the breed as they are really met with in common, conclusions are not to be drawn from the shape and size of the bulls, but from the usual quality of their stock. Certain it is, that individual handsome bulls are not unfrequently met with in other breeds, but it is equally true that the whole produce being this sort, stands the acknowledged favorite, or among the very first, in the great market of the metropolis, where prejudice is quite out of the question. Further, in deciding on their real merit, the animal produce afforded is to be regarded; which, in oxen whose superiority of flesh, agility in labor, and what is called blood, will be found the proper standard for judging of the bulls that got them. The following may be taken as the description of a very handsome shaped individual:—the horn is neither seen drooping too low, or rising too high, nor with inverted points; tapering at the ends, but not too thick or *goary* at the roots; the color yellowish; the eye clear, bright, and prominent, looking well behind, and displaying much of the white; occasionally a variation of color round it. It has a forehead flat, indented and small, which is met with almost universally in the breed, and indicates much blood: cheek small, and muzzle fine, which if the forehead be so, the muzzle is so too: the nose of a clear yellow or mottled: (a black nose should be constantly avoided; as though such may occasionally bear work and die well, yet it not unfrequently shows a bad constitution, or such as provincially turn scourers or *skinters*, especially when the cast of the coat is in color too pale: high and open nostrils:) the bulls in this sort sometimes said to be too *throaty*, or to have the skin pendulous or too profuse, and the hair

being curled affords an appearance of coarseness to the head, not met with in the improved long-horned, or new Leicester, breed of bulls when properly trimmed: the neck perhaps thick and goary, in the opinion of strangers, which, however, in the oxen of this sort are not to be censured, as they are thus enabled to work as they do.

In common, the bulls are in relation to the oxen, not of a large size; and it should be noticed in regard to size in general, that nature acting by food and climate, or exposure, is imperious, and will produce animals proportionate to such causes in the proper course of time, whatever the original size of the bulls and cows might have been. The neatness of the form and vigor, and energy in labor, which distinguish this breed in a great degree, if not wholly, arose from breeding by heifers, and year and two year old bulls. Compared with the horse, the shoulder is considered low; it should answer to the general thickness of the animal—on no account projecting. If the bullock be in-kneed, or bending inwards to each other, the point of the toe will be out; the point of the shoulder the same, and the beast must be hollow behind the withers, which, in an ox for feeding, is an incorrigible point, and he must, of necessity, be a slow worker. The bosom is not sharp, with a loose, pendulous dewlap; but wide in form, and mellow in handling. In purchasing an ox, great attention should be paid to the breadth of the bosom, and between the fore-legs, standing quite wide, which should be like straight pillars supporting a great weight. Much in buying is lost or gained by having regard to this point; it is not for beauty of form only, but implies strength and speed; a proportionate breadth of breast giving wind: and therefore of so much importance to a working ox. The legs are straight; and the more blood an ox shews, the smaller will it be. The circumstance of this breed shewing more blood than any other in the kingdom has been noticed by many persons ignorant of cattle, but deeply skilled in horses. The leg should be neither too long nor too short: an undue length to be particularly avoided.

Very much of a bullock's proof is allowed, on all hands, to depend on the size of the rib, rotundity of the barrel, and mellowness of the skin. These are the first points to handle in a lean and in a fat ox. The two hind ribs should be bold and prominent, as well as widely independent of each other: the skin rising easily from them, mellow and elastic, affording room to lay fat on below it.

In buying in a lean ox, a person would do well to handle him on both sides; it often happens, that the frame or barrel is not equally round on both; one being evidently to the eye and hand flatter than the other. The hips, or pins, lie so high as to be on a level with the back, either in the fat or lean state. The older the animal, the lower the upper flank drops, and consequently, the higher the hips appear. In this point of the upper flank, a skilful judge will discover much of the inward properties of a fat bullock. The hind quarters from the pin to the catch, or point of the rump, should be long and fitted up; in the estimation of choice judges, handling the centre of this space determines more of the substantial quality of the flesh and fat of a beast, than the prominence of fat so much admired by bad judges on the catch of the rump. The setting on of the tail should be on a level with the back, something elevated, nothing depressed: size long, small, taper, and with a round bunch of hair at the bottom: the tail, as in a horse, denoting much of high blood. It is noticed, that in this sort the gaskins are too much cut away, nor, as in the Holderness breed, heavy and loaded; and it should be always kept in mind, that these beasts are not bred for inactivity, but for wind, vigor, and strength; for though a breadth in the bosom, inasmuch as it is essential to wind, in a working animal, is beneficial, yet a load of flesh on this hind part tends nothing to activity; and, being of second rate quality, is not desirable.

With relation to the point of skin, they are among the thinner, rather than the thicker, classes. It is very rarely that an ox of this sort is found with a hard or wiry skin. Much depends on color: the shades most admired are the mahogany; and the more glossy, if smooth, the better. Those with curled hair are deemed excellent provers; and a very glossy mahogany skin, paler or lighter, with curls like ripples of wind on a smooth millpond, is held in the highest esteem. It is difficult to say which of these are the best; all turning out such members of good fat oxen. The paler shades, if the eye be clear and good, will bear hard work, and prove as well as any. This rule alone is absolute—that a pale skin, hard under the hand, with a dark and dead eye, denote a *skinter* in hard work, and rarely, under any indulgence, a good prover. With respect to the lower flank, and the cod, they do not, it is supposed, deserve that attention which many persons bestow on them, who think such points of prime importance. The graziers like this breed best at five years old. The worked-out steers of the vale sell for more, at five years, than at six: but six is the proper age. At eight, nine, and ten, they are going back in all their points; and in their value at seven. No ox should be kept after this period, or at most after eight. They are yoked at two or three years old, and lightly worked—labor increased at four, from which period to six they are full worked. When worked, it is supposed, they attain a larger size than when not worked, they finish their growth mostly at six years old, but the larger sizes grow the longest.

Lord Somerville has found in practice, that the pole and yoke form the true lever of an ox in draught, as the animal can draw a greater weight in that manner than in collar and harness, especially in a steep country. His Lordship states, that the bullocks never go home in the middle of the day; but hay is carried into the field. All the calves of this breed are reared conformably to his Lordship's practice.

It is said, that these oxen are not parted with by the tillage farmer, until the finishing of the barley-sowing, and, in many cases until the turnip is once stirred, yet they are grazed fat, to the average weight of forty-five score, in six or eight months: those kept on till the begining of the ensuing year, fattened on hay alone, which, in the grazing districts of the west, is held equally nutritious with any sort of corn, stand the drift to the metropolis without waste. There are many instances of marsh-feeding heifers, bought early in the first or second spring months quite poor, being made fit for the butcher by the middle of summer; and in August making uncommonly fine beef.

The station of this breed begins at Barnstaple, and is traced by the line of the river Taw, as high up as Chumleigh, then to Tiverton on the Ex, and nearly to Taunton: then, straight to the sea, over the eastern boundary of the Quanton hills, to Stoke Courcy; from which place, on the eastern extremity, to the mouth of the Barnstaple river on the western, including in the whole to the length of forty-five miles, and to the breadth, across from Tiverton to Minehead, of twenty two. To the east of the range, the breeds gets into a mixture of the Gloucester, Welch, Upper Somerset, and others, being a varied dairy sample: and more to the west, a Devon, verging on the Cornish stock. To the south, the variety of the horns in that direction is found—coarse, with a good deal of white and brown, with black and white mixtures, of uncertain properties. Exmoor is the highest-point of the district thus defined, the country shelving from it in every direction, the source of all the rivers, and the head quarters of all the cattle; at Brampton and Wyvelscomb, they are found in great perfection.

These are well proportioned, fine looking sort of cattle, which have the greatest similarity to each other, perhaps of any kind whatever, a circumstance arising, most probably, from breeding only from such as are wholly of the proper red color, and discarding altogether any that may have white on any part of them. They are a kind which, in the cows and oxen, are almost wholly without any sort of leathery coarseness about them, although the bulls are far from being free from these, and other faults and imperfections in their form.

Though the cows have been seen to be in general short milkers, in some dry thin situations of the pastures, they have been found to be by no means bad butter or cheese cows.

Where these cattle are raised with more thickness in the hide, somewhat shorter and more full in the leg, with a little more length in the body, they have been found, in the oxen, to be less tender, and to stand working better, and in the cows to be better formed for affording milk. They have a greater weight too than the common breed, as in the oxen generally from about 550 to 850 pounds and upwards, and in the cows from about 430 to 550 pounds or more.

They are a kind of cattle which are capable of standing stall-feeding in a better manner than many other sorts.

It may, on the whole, be concluded, when all the properties which should attach to an useful breed of cattle are considered, that the middle-horned, as a general sort, come much nearer to perfection than any other in this country. They are of a good size, well-formed, and in disposition to fatten, they are probably much on a par with the short-horned, and generally superior to the Suffolk. As dairy cattle, they are also as valuable as any that fall under the description of quick feeders; for although they give a less quantity of milk than the Suffolk or the long-horned, it is said to be of a richer quality in its nature.

It is, therefore, a most valuable and useful sort of neat cattle stock, in many different intentions,

especially in its late more improved state, by which its beneficial properties have been much increased and rendered more generally applicable.

THE GARDENER.

Vegetable Fluids.—Vegetables, like animals, are composed of fluids and solids. The fluid parts produce those which are solid; and the only pabulum of plants being liquid, it is necessary there should be an organic vascular system for its distribution, and that it should no less possess the vital power of assimulation, in order to supply the growth which takes place, and to diversify the products which characterise every species of perfected plants.

The general solid components of the vegetable system are, the membranous, the cellular, the vascular, and the glandular textures, the lignious fibre and the epidermis.

The general fluids are the sap and the proper juice.

General Fluid Components of Plants.

Vegetables, by their vital energy, develope themselves, increase in bulk, and augment the quantity of solid matter they contain; consequently the principles of the solids must be contained in the particular fluids which they select and imbibe from the soil. But in what manner the fluids are changed into solids, and whether any of the solid matters be taken up ready formed, or whether they result from a transformation effected solely by the action of the vegetable vessels, are subjects of consideration upon which it would be premature to enter. These fluids, however, after being absorbed by the roots, enter into and fill the cells and vessels of the plant, and form a very considerable portion of the bulk of the vegetable body. As soon as they enter the plant, they constitute its Sap, or *common juice*, to the nature of which, as one of the general components of vegetables, we shall now direct our attention.

The motion of the sap, though constant during the continuance of the life of the vegetable, is still most active in spring and midsummer; at which periods a much greater quantity of the fluid is found in the vessels of the plant. The sap appears to be in the same situation for the purposes of the plant, as the chyle of animals is, while yet in the thoraic duct, and before it is mingled with the blood, and exposed in the lungs to be fitted for the purposes of life. Neither is in a proper state for yielding the various secretions, and adding, by the process of assimilation, to the growth of the plant, or of the animal; but the analogy goes no further. In the animal, the digestive powers of the stomach and the action of the mesenteric glands so change the food taken into it, that no chemical analysis of the chyle produced from it could lead to an accurate knowledge of the food which had been employed by the animal; but in plants, the food is already prepared in the ground before it is absorbed by the roots, and, therefore, were it possible to obtain the sap from the vessels very near the extremities of the roots, we should be enabled to discoves, with considerable accuracy, the real food of the plants. This, however, cannot be accomplished; and as the sap, in its progress, dissolves some ready-formed vegetable matter, which had been deposited at the close of the preceding autumn, in the upper part of the root and at the base of the stem, its original properties are thus altered; and the farther the part, which is bored in order to procure the sap, is from the root, the more vegetable matter this fluid is found to contain. Were it possible to obtain the sap completely free from the peculiar juice of the plant, it would probably be found nearly the same in all vegetables.

When the sap is drawn from a tree early in the spring, the time when it moves or bleeds most freely, and as near the root as possible, it usually appears nearly as colorless and limpid as water, has scarcely any taste, and no particular odor. Its specific gravity is a little higher than that of distilled water. If it be kept for some time in a warm place, it undergoes sometimes the acetous, at other times the vinous, and in some instances the putrefactive fermentation. These differences would indicate a disparity in the composition of the sap of different plants; but there is every reason for thinking that they depend more on the admixture of the proper juices. The rapid vinous fermentation of some kinds of sap is taken advantage of in warm climates, for economical purposes. From the top of the Cocoa-nut palm, the natives of India extract the sap by an incision made in the evening, and receive it in a vessel set for that purpose: this liquor next morning forms a pleasant, mild, and cooling beverage; but before evening, it ferments, and becomes powerfully intoxicating. In Ceylon, arrack is distilled from this fluid; and it also yields by boiling, in the same manner as our Sugar Maple (*Acer saccharinum*,) a coarse sugar. In these cases, however, the sap is evidently mixed and combined with the proper juice of the tree. According to Mr. Knight, sap always contains a considerable portion of air. It also differs in its specific gravity, according to the distance from the root at which it is taken, the gravity increasing,with the distance; arising, apparently, in some degree, from the solution of deposited matter in its progress, but perhaps more from the transpiration of the plant, throwing off a large proportion of the watery part of the matter taken up from the soil. Such are the sensible qualities of the sap; its chemical properties and composition are discovered by tests, and analysis by heat.

According to Vauquelin, the sap of the Elm (*Utmus campestris*,) collected towards the end of April, the beginning and the end of May, in 1039 parts consisted of 1028.904 of water and volatile matter; 9.240 of acetate of potash; 1 060 of vegetable matter; and 0.796 of carbonate of lime.—The second analysis of the sap, collected at the beginning of May, afforded a greater proportion of vegetable matter, less acetate of potash, and also less carbonate of lime: and in the third analysis of that collected at the end of May, the quantity of the acetate of potash was still more diminished, and also that of the carbonate of lime. In all he found slight traces of sulphate and muriate of patash. From two different analyses of the sap of the Beech (*Fagus sylvatica*,) procured also at different periods of the same season, he obtained water, acetate of lime, free acetic acid, gallic acid, and tannin, with some vegetable extractive and mucous matter. In the same manner he examined the sap of the common Hornbeam (*Carpinus Betulus*,) collected in March and April, and found in it acetate of potash, acetate of lime, sugar, mucilage, vegetable extract, and water. In the sap of the common Birch (*Betula alba*,) he found acetate of lime, acetate of potash, acetate of alumina, sugar, vegetable extract, and water. In all the specimens thus analyzed, the quantity of vegetable matter was found to be greater in the sap drawn late in the season, than in that collected at an earlier period of it.

The modifications which take place in the roots of plants, throw considerable obstacles in the way of obtaining a perfect knowledge of this part of vegetable economy; for to obtain such a knowledge of the nature of sap would require an examination of that fluid in a greater number of different species of plants, than the opportunities and the period of any life would permit. All that we can aim at, therefore, in the present state of our knowledge, is the formation of a probable hypothesis, rather than the attainment of truth, deduced from certain experiments. In this mode of viewing the subject, we may regard the sap of plants as consisting of *water*, which is its principal component, *carbonaceous matter*, *acetate of potash*, and *carbonate of lime;* which ingredients are decomposed by the vital powers of plants, and new combinations of their constituents are produced by the same powers, so as to form the different parts of which a plant consists. The large portion of vegetable matter contained in the first sap must have been previously deposited in the cells of the root, and taken up by the water of the sap in its progress upwards: and air which is also found in sap, is either the produce of vegetation, or is taken in by the roots dissolved in the water of the soil.

Such is the nature of the sap. In spring and at midsummer it forms a large portion of the vegetable body; and is carried forward through the vessels, with an impetus sufficient to raise it to the summits of the highest trees, until arriving at the leaves, in which it is exposed to the action of the air and light, the great quantity of water it contains, being no longer necessary, is thrown off by perspiration; whilst the *succus proprius*, or peculiar juice of the plant, from which all its secretions are formed, is produced by the changes resulting chiefly from this exposure.

Weather Wise.—A gentleman in Virginia, has had a standing bet for twelve or fifteen years, that it would rain in the first Saturday in every August, which he has won every year except one. Another gentleman bet that it would rain the 25th of July, and won it. He says that it has never failed to do so for the last sixteen years.

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Silk—Report of Maryland Horticultural Society—method of destroying Moles—Singular circumstance noticed in hewing a millstone—To preserve Potatoes and Turnips through winter—Farmers' Lyceums—Work for August—Wool—On the varieties of Potato in Great Britain—Dixon's description of the middle-horned or Devonshire breed, &c. of Cattle—Vegetable fluids—Weather wise.

BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
BRANDY, Apple,	gallon.	$0 27	$—
Peach,	"	75	—
BEANS, white field,	bushel.	2 00	—
BEEF, on the hoof,	100lbs.	5 00	5 75
CORN, yellow,	bushel.	66	68
White,	"	66	68
COTTON, Virginia,	pound.	10	13
North Carolina,	"	11	13
Upland,	"	13	15
FEATHERS,	pound.	—	37
FLAXSEED,	bushel.	1 00	1 25
FLOUR—Best white wheat family,	barrel.	6 75	7 25
Do. do. baker's	"	6 25	6 75
Do. do. Superfine,	"	5 00	5 25
Super Howard street,	"	5 12	5 25
" " wagon price,	"	5 00	— —
City Mills, extra,	"	5 62	5 75
Do.	"	5 50	5 62
Susquehanna,	"	5 25	—
Rye,	"	3 37	—
GRASS SEEDS, red Clover,	bushel.	—	4 50
Timothy (herds of the north)	"	3 50	—
Orchard,	"	3 00	—
Tall meadow Oat,	"	2 50	—
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	14 00	15 00
Pressed,	100 lbs	—	90
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
LIME,	bushel.	30	35
MUSTARD SEED, Foreign,	"	4 50	5 00
Domestic,	"	5 00	—
OATS,	"	31	33
OIL, linseed,	gallon.	—	90
Castor	"	1 70	1 80
PEAS, red eye,	bushel.	—	—
Black eye,	"	—	1 00
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	3 00	—
Ground,	barrel.	1 37	—
PALMA CHRISTA BEAN,	bushel.	2 00	—
RAGS,	pound.	3	4
RYE,	bushel.	71	— —
TOBACCO, crop, common,	100 lbs	3 50	5 00
" brown and red,	"	4 50	6 00
" fine red,	"	6 00	8 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	13 00	17 00
" fine yellow,	"	15 00	22 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	4 00	—
Rappahannock,	"	3 00	4 00
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 20	—
Red,	"	1 00	1 05
WHISKEY, 1st pf. in bbls.	gallon.	28	29
" in hhds.	"	26	—
" wagon price,	"	—	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 50	—
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	50 *to* 60	24 *to* 26
Full Merino,	"	40 50	20 24
Three fourths Merino,	"	33 40	22 24
One half do.	"	28 33	21 22
Common & one fourth Meri.	"	25 28	18 20
Pulled,	"	28 31	18 20

UNDERGROUND TURNIP.

THIS turnip is represented as able to resist frost in an extraordinary degree. (See description of it in the first page of this No.) For sale at the American Farmer Establishment. Price $1 per pound. jy 8

CUBA TOBACCO SEED.

JUST received from Matanzas, a few ounces of the true Cuba Tobacco Seed, from *la Vuelta Abajo*, warranted in prime order—Price $1.00 per ounce.

I. I. HITCHCOCK.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	peck.	$0 25	$0 37
BACON, hams,	pound.	11	—
Shoulders,	"	—	9
Middlings,	"	—	9
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,	"	12	18
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	4 00	8 00
COWS, new milch,	"	15 00	27 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 56	1 62
CHOP RYE,	"	1 56	1 62
EGGS,	dozen.	9	—
FISH, Shad, trimmed		—	—
" salted,	barrel.	6 37	—
Herrings, salted, No. 1 & 2,	"	3 87	4 00
Mackerel, No. 1, 2 & 3,	"	3 75	6 25
Cod, salted,	cwt.	—	2 75
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	31	50
LARD,	pound.	8	—
ONIONS,	bushel.	—	75
POULTRY, Fowls,	dozen.	—	—
Chickens,	"	2 25	2 50
Ducks,	"	—	2 50
POTATOES, Irish,	bushel.	—	62
New,	peck.	12	25
VEAL, fore quarters,	pound.	6	—
Hind do.	"	8	—

ADVERTISEMENTS.

SKINLESS OATS.

A VERY small quantity of this celebrated new article has been obtained, at an enormous expense, and will be disposed of at this Establishment, at 50 cents per ounce. But as my stock of Gama Grass Seed is, for the present, exhausted, I shall substitute this article as a return, to all subscribers to the Farmer & Gardener, on payment of their subscription. (See terms)

I. I. HITCHCOCK,
July 29. Amer. Far. Estab.

☞ See an account of this article on the first page of number 13.

A SUPERIOR JACK FOR SALE.

FOR SALE, by a farmer in this state, a splendid Maltese Jack, *first rate in every respect.* He is *nearly* 14½ hands high!—Eight years old last spring; quick in performance, and *efficient* to an unusal degree. 31 mares out of 34 in one instance, and in another 8 out of 9 mares belonging to one farmer proving with foal by him in 1833. He is probably in every respect one of the best Jacks ever imported into the United States. Price $1000. Address

I. I. HITCHCOCK,
jy 29 Amer. Farmer Establishment.

WESTPHALIA GEESE.

A FEW pairs of these unrivalled Geese for sale at this establishment. They were hatched in April last, and are *now* considerably heavier than old geese of the common breed.

These geese are of the purest white, with bills, legs and eyes of a bright scarlet color. Geese of this breed have attained the enormous weight of 20 pounds, and those now offered for sale are for their age equal to any both in beauty and size that we have ever seen—Price $5, a pair. They can be sent safely in coops or crates any distance. july 29

NEW LEICESTER BUCKS.

I AM authorised to sell several fine Bucks of the Leicester or improved Bakewell breed of Sheep, and one do of the Cotswold breed, at from $75 to $100 each. Who will have one or more? I. I. HITCHCOCK,
July 15. American Farmer Establishment.

THE COMPLETE FARMER.

JUST PUBLISHED and for sale at this establishment, price $1, "The Complete Farmer and Rural Economist, containing a Compendious epitome of the most important branches of Agriculture, and Rural Economy. By Thomas G. Fessenden, Editor of the New England Farmer." "Agriculture is the art of arts: without it man must be a savage, and the world a wilderness."
june 24

DEVON CATTLE.

THE subscriber has the selling of a considerable number and variety of these valuable cattle at prices *unusually low*, viz: Bulls from 75 to $100; Cows and Heifers from 60 to $80, and Calves, one year old and less, from 40 to $60. More particular information may be had by application to I. I. HITCHCOCK,
May 9. American Farmer Establishment.

IMPROVED DURHAM SHORT HORN BULLS—CHEAP.

I AM requested by a gentleman of high character as an agriculturist, in a neighboring state, to offer for sale several Bulls of his, of which he has yet given me no other description than the following, viz: "My stock is of the Short Horn Durham breed, and derived from the best and purest sources, imported recently." He offers Bulls two years old, one year old, and of the last spring, at the following prices respectively: $200, $150, $100.—If, as I presume from the character of the gentleman, his stock is of a high order, and if he can, as I also presume, furnish pedigrees of pure blood, then is the present a rare opportunity to procure fine Bulls, at more moderate prices than I have hitherto been able to offer them. I will ascertain further particulars in regard to this stock, and be able shortly to speak definitely as to its character. In the mean time, should any gentleman want one or more of these Bulls, he may rely entirely on receiving through this Establishment no other than such as shall be represented and proved too.

Address I. I. HITCHCOCK,
July 15. American Farmer Establishment.

NEW HORSE POWER AND THRESHING MACHINE.

THE SUBSCRIBER, as agent of the Proprietors, for the sale of "Lane's Endless Chain Horse Power, and Threshing Machine," within the state of Maryland, offers for sale the above named implements together or separate. These implements have been used several years in New England and were last season introduced into Maryland. The Horse Power consists of a box or frame, 9 feet long, 4½ feet high and about two feet in breadth, the bottom of which is an iron chain, in the form of a band 15 inches wide, which revolves like an apron around two drums, placed near each end of the box. To the shaft of one of these drums, projecting beyond the side of the box, is attached a wheel of 27 inches diameter, around which a leathern band revolves giving motion to the Thresher or any other machine to be moved by it. The motion is communicated to the power by a single horse standing within the box upon the endless chain and by travelling upon it causing it to revolve around the drums, and thus give motion to the machinery. The Horse Power is *portable*, weighing only about half a ton and occupying no more space than 9 feet by two.

The Thresher is of small size, but very perfect in its construction, and sufficiently strong. When used, it stands by the side of the Horse Power, and is attended by three men. By the use of this apparatus three men with one horse can easily thresh in a day of good wheat from 80 to 100 bushels. If two horses be used alternately, each an hour, more than this can be done with ease. It threshes remarkably clean.

The whole apparatus, is strong and durable, and not liable to get out of order. A winnowing machine can be attached by a band and operate at the same time. This machine is confidently recommended to farmers as a thresher, and the Horse Power to Mechanics to drive various kinds of machinery.

PRICES.—For the Horse Power and Thresher together, with the privilege of the patent right for using them on a farm, two hundred and twenty five dollars. For other uses than threshing grain the Horse Power alone with the patent privilege is furnished for $150, to $175, and the Thresher will be sold alone for $50.

Address, I. I. HITCHCOCK.
American Farmer Establishment.

The PATENT RIGHT privilege for making, using, and vending these implements, in any county in Maryland, except Baltimore City and County, will be disposed of by the subscriber on very liberal terms. jy 1

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